

## WHAT IS CLAIMED IS:

1. A polishing pad for chemical-mechanical polishing comprising:
  - (a) a first polishing layer comprising a polishing surface and a first aperture having a first length and first width,
  - (b) a second layer comprising a body and a second aperture having a second length and second width, wherein the second layer is substantially coextensive with the first polishing layer and at least one of the first length and first width is smaller than the second length and second width, respectively, and
  - (c) a substantially transparent window portion, wherein the transparent window portion is disposed within the second aperture of the second layer so as to be aligned with the first aperture of the first polishing layer and the transparent window portion is separated from the body of the second layer by a gap.
2. The polishing pad of claim 1, wherein the transparent window portion is adhered to the first polishing layer.
3. The polishing pad of claim 1, wherein the transparent window portion is welded to the first polishing layer.
4. The polishing pad of claim 1, wherein both the first length and first width are smaller than the second length and second width, respectively.
5. The polishing pad of claim 1, wherein the gap has a width of about 0.1 mm to about 1 mm.
6. The polishing pad of claim 1, wherein the gap is filled with a compressible material.
7. The polishing pad of claim 1, wherein the perimeter of the first aperture is angled.
8. The polishing pad of claim 1, wherein the perimeter of the first aperture is rounded.
9. The polishing pad of claim 1, wherein the transparent window portion is further disposed within the first aperture of the first polishing layer.

10. The polishing pad of claim 1, wherein the polishing surface of the first polishing layer further comprises one or more grooves.
11. The polishing pad of claim 10, wherein the grooves are aligned on either side on the aperture.
12. The polishing pad of claim 1, wherein the transparent window portion has a thickness that is less than the thickness of the second layer.
13. The polishing pad of claim 1, wherein the first polishing layer comprises polyurethane.
14. The polishing pad of claim 1, wherein the transparent window portion comprises thermoplastic polyurethane.
15. The polishing pad of claim 14, wherein the transparent window portion has a light transmittance of about 1% or more at at least one wavelength from about 200 nm to about 10,000 nm.
16. The polishing pad of claim 14, wherein the transparent window portion further comprises particles selected from polymer particles, inorganic particles, and combinations thereof.
17. The polishing pad of claim 1, wherein the transparent window portion contains pores.
18. A chemical-mechanical polishing apparatus comprising:
  - (a) a platen that rotates,
  - (b) the polishing pad of claim 1, and
  - (c) a carrier that holds a workpiece to be polished by contacting the rotating polishing pad.
19. The chemical-mechanical polishing apparatus of claim 18, further comprising an *in situ* polishing endpoint detection system.
20. A method of polishing a workpiece comprising
  - (i) providing the polishing pad of claim 1,

- (ii) contacting a workpiece with the polishing pad, and
- (iii) moving the polishing pad relative to the workpiece to abrade the workpiece and thereby polish the workpiece.

21. The method of claim 20, wherein the method further comprises monitoring the progress of polishing of the workpiece, while the polishing pad is moved relative to the workpiece to abrade the workpiece and thereby polishing the workpiece, with an *in situ* polishing endpoint detection system.

22. The method of claim 20, wherein the method further comprises determining the endpoint of the polishing of the workpiece with the *in situ* polishing endpoint detection system.